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ABSTRACT

This study investigated the extent to which English-as-a-Foreign-Language (EFL) writing students in a Taiwanese university used ideas provided by their peers during computer-mediated prewriting discussions, and the quality of the peers' comments. Subjects were 17 students in four writing groups. Transcripts of discussions preceding the first drafts of two writing assignments were analyzed, and students were then surveyed about the comments they incorporated into their writing processes. Results indicate that students did use some of the ideas discussed during computer-mediated prewriting discussions, but not very often. Some students did not use any of the ideas presented to them. Almost half of the ideas used were concerned with macro-level composition issues such as topic appropriateness or overall essay structure or content, and about one-fourth of the ideas concerned paragraph-level issues, suggesting that the quality of the comments was good. Activities or resources that students perceived as useful in idea generation included, in descending order of importance, textual information from the school library or students' homes, the students' own ideas, ideas from friends, textual information from the textbook and teacher handouts, and computer-mediated prewriting discussions. Instructional and research implications are considered briefly. Contains 26 references. (MSE)

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EFL Students' Use of Ideas Provided by Peers During Prewriting Discussions Conducted on Networked Computers

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Abstract

This is a study of four writing groups (a total of 17 students) enrolled in an EFL composition class at Tunghai University. The process approach to teaching writing was adopted and small-group prewriting discussions were held to help students generate ideas in the prewriting stage. These discussions were conducted on networked computers using a program named DIWE (Daedalus Integrated Writing Environment). The purpose of this study was to examine students' use of the ideas provided by their peers during prewriting discussions in writing first drafts. The quality of the comments made by the students during these discussions was also examined. Eight prewriting discussions were tape-recorded. Then the students were interviewed about which parts of their peers' commentary they used in the actual writing. The students also filled out a questionnaire to indicate their feelings about the usefulness of prewriting discussions held on networked computers. The findings showed that the students did use peers' comments, but the instances of use were quite low. However, the quality of the comments used appeared to be quite respectable, with 40% of them focusing on macro-level issues, indicating the students' ability to evaluate writing and revise on a global level. The findings showed that even though prewriting discussions were helpful to a certain extent, they were not as effective as desired by the teacher. Students also did not perceive these discussions as very useful. This paper ends with suggestions for improving the quality of prewriting discussions and for complementing these discussions with other prewriting activities.

Introduction

Recently some writing teachers have begun to use interactive computer networks to help students conduct discussion to facilitate the writing process, including the prewriting, writing, and revising stages. In Taiwan, DIWE (Daedalus Integrated Writing Environment), a program that allows synchronous interaction among students, is being used at Providence and Tunghai Universities, and more universities may consider using similar programs. While sizable amounts of money are being spent on such software, it is necessary to consider whether computer-mediated (hereafter referred to as CM) group discussions are indeed effective. In this study, the researcher explored students' use of ideas provided during CM prewriting discussions when writing first drafts, the nature of the ideas used, and students' feelings about the usefulness of these discussions. Thus, the research questions of this study are as follows:

1. When writing first drafts, do students use the ideas provided by their peers during CM prewriting discussions?

2. How high is the quality of the ideas students choose to use when writing first drafts?

3. What are students' perceptions of the usefulness of CM prewriting discussions as a way to facilitate idea generation?

The purpose of this study is to shed light on the usefulness of CM prewriting discussions.

Thus, teachers will be able to make informed decisions about whether to use software designed for synchronous student interaction in the prewriting stage.

Review of the Literature

In recent years, students in writing classes have begun using computer networks which allow immediate interaction among students to help them conduct prewriting discussions and peer response sessions. The interactive nature of networked computers goes well with the collaborative writing pedagogy advocated by Bizzell (1982), Bruffee (1984), and Elbow and Belanoff (1989) and has been viewed as a desirable element in writing classrooms. Researchers have also started to examine the efficacy of using these systems to facilitate writing.

Some L1 studies have examined how networked computers are used in writing classes. Some of these studies focused on the nature and quality of the discussions held on networked computers. Examples are Bump (1990), Hartman et al. (1991), and Mabrito (1992). Other studies examined the effects of networked discussions on students' writing. Hunt (1992) found that dialogues on networked computers helped students to generate topics in the prewriting stage and to focus and finalize their papers in the revising stage. Peers' comments also showed an appreciative support for the accomplishment of the authors and prompted discussion about the writing topics. Students believed that the use of the computer had changed their writing. Dodson (1994) proved that the use of an integrated learning system helped the writing of 5th graders in the bottom quartile. Craven (1994), Kemp (1993), and Sullivan (1993) claimed that the use of DIWE increased students' confidence and ability in writing while encouraging them to solve problems and collaborate with others.

Some L2 studies have also examined the nature of networked discussions. Examples are Beauvois (1992, 1994), Chun (1994), Kelm (1992), Kern (1995), Singer (1995), Sullivan and Pratt (1996), and Warschauer (1996). Other studies tapped into the effects of networked computers on student writing. Ghaleb (1993) found that ESL university freshmen using a writing network wrote more and their error percentage dropped further than a group using the paper-and-pencil method. Smith-Hobson's (1994) ethnographic study investigated how three ESL college students interacted with their peer tutor on the FPIA system (Five-Part Integrative Approach) and found that the system changed the processes and products of the students' writing. The students learned to make connections between ideas, developed new writing strategies, wrote more frequently in their own voice, and also wrote more succinctly. Singer (1995) studied the revisions L1 and ESL university students made in response to comments peers provided at CM peer response sessions and in the face to face context. He found that most students revised not in response to peer comments and that most revisions were surface level. He also proved that intertextual comments produced more surface-level changes for ESL students than for L1 students, and comments with prompts were more apt to cause meaningful changes in ESL students than L1 students. In addition, three other studies conducted by Braine (1997), Ghaleb (1993), and Sullivan and Pratt (1996) compared two groups of ESL writers, one writing on networked computers using DIWE and the other writing in a lecture-style class. All three studies showed that papers written by the former group were of a higher quality than those written by the latter. In the Taiwan context, some research has also examined how EFL university students used networked computers. A study by Chang and Huang (張芳杰、黃自來) (1991) showed that students' use of a network was not very successful. Students seldom used it to communicate with either the teacher or other students, and the computers were used mainly as word processors. Baker (1995) reported that DIWE was used in 1994 by four

groups of sophomores in the English Department at Providence University. Both students and teachers had positive responses about its continued use. However, none of the above studies investigated whether Chinese EFL students use the comments produced at CM prewriting discussions to write first drafts, the quality of the comments used, or the way the students perceive the usefulness of these prewriting discussions. Research is greatly needed on these issues.

Methodology

This study was conducted over the course of two semesters in the academic year of 1996. The teacher was also the researcher, who has a doctoral degree in Curriculum and Instruction and has been teaching EFL language courses for nine years and EFL writing for four years.

Participants

The participants in this study were 17 EFL students, 13 females and 4 males, enrolled in a composition and oral training course for sophomores in the Dept. of Foreign Languages and Literature at Tunghai University in Taiwan. In the first semester, there were 16 students, but one more joined the class in the second semester. Before entering the researcher's class, all the students had learned to do word processing in English (Word 5.0 or 6.0). In the beginning of the course, none of them had done a prewriting discussion on networked computers. Fifteen out of the 17 students had positive expectations about the effectiveness of prewriting discussions.

Instructional Procedures

During the year, the students wrote seven writing assignments, and with the exception of the first assignment, all the writing was of an expository nature. The students were divided into four writing groups, with four or five members in each. Since in the beginning of the year the students expressed their desire to change groupings occasionally (so that they could have the experience of working with different people), the grouping for assignments 1, 2, and 3 was different from that for assignments 4 and 5, which was again different from that for assignments 6 and 7. For each assignment, before the first drafts were written, each writing group conducted a prewriting discussion to share ideas about their writing in order to get feedback for writing the first drafts. In preparation for this prewriting activity, each student was asked to make an outline of the main ideas he/she considered putting in the essay before joining the prewriting discussion. During the first semester, the students were given roughly 50 minutes for each discussion; but the amount of time was extended to 60 minutes in the second semester. However, the actual amount of time taken varied with each group. A leader was also chosen for each group. One week after the prewriting discussion, the students were asked to submit their first drafts.

The prewriting discussions for assignments 2, 4, and 6 were mediated through InterChange, a module in DIWE. In contrast, the discussions for assignments 1, 3, 5, and 7 employed face-to-face interaction. In this study, data collected from two assignments were analyzed: assignments 4 and 6. The types of essays the students were asked to write for these two assignments were classification and argumentation, respectively.

Data Collection Procedures

Data were collected in the following ways:

1. The students were asked to mark the comments they used for writing their first drafts on the transcripts made of the prewriting discussions. Then the students were individually interviewed about whether they used each of the ideas on the transcripts. These interviews were conducted after the first drafts were completed and the interviews were audiotape-recorded. In addition, the interviews were conducted in Chinese, so that the students would not feel inhibited about expressing themselves. Students were also told that what they said would not affect their grades.

2. At the end of the course, the students were asked to fill out a questionnaire anonymously about their perceptions of the usefulness of several types of activities or resources which were used to help them generate ideas for writing.

Results and Discussion

Students' Use of Ideas Discussed During Prewriting Discussions

When interviewed about how they used the ideas provided by peers, the students were told to specifically indicate whether the discussions in general influenced their choices of writing topics. They were also told to report any ideas that they themselves had not thought of but found useful and eventually used in writing first drafts. If the ideas presented by peers had already been thought of by the students, these ideas were not included in the following analysis. Table 1 shows the numbers of instances in which the students used peers' ideas. The prewriting discussion held for assignment 4 is indicated as PW4 and that of assignment 6 as PW6.

Table 1: Number of Instances of Students' Use of Ideas Discussed in Prewriting Discussions

	PW4	PW6
Number of students who participated in the prewriting discussion	14	14
Number of students who reported using ideas from the prewriting discussion (% out of the total of students who participated in the discussion)	7 (50.0%)	11 (78.6%)
Total of instances in which a prewriting discussion caused a change of topic or another aspect of the writing in four groups (average number of instances per participating student)	10 (0.7)	20 (1.4)

Table 1 shows that some students did use the ideas from the prewriting discussions. Therefore, the prewriting discussions were useful to a certain extent. However, the average number of instances of use was low for each of the assignments, i.e., 0.7 and 1.4 instances per student who participated. Considering that these prewriting discussions took quite some time, i.e., on average about 50 minutes for each session, the instances of use were very low. In addition, since only 50.0% and 78.6%, respectively, of the students who participated in PW4 and PW6 actually used the ideas from peers, the efficacy of prewriting discussions appeared to be somewhat questionable. To the students who did not use any idea, these discussions must have seemed like a waste of time.

However, the quality of the ideas the students did choose to use in writing their first drafts seemed to be quite respectable. The researcher classified the ideas the students used into four categories according to the extent to which they affected the writing: (1) an idea that caused a student to choose or abandon a certain topic, (2) an idea that caused a macro-level change that affected the overall structure or focus of a whole essay, (3) an idea that affected the writing of a whole paragraph, and (4) an idea that affected the writing of part of a paragraph (i.e., a few words, a clause, or a segment of two or three sentences). Table 2 shows the number of each type of idea that was used in writing.

Table 2: Various Types of Ideas Used in Writing First Drafts

	Causing a topic change	Causing a macro-level change	Causing a paragraph-level change	Causing a change smaller than a paragraph	Total
PW4 (CM)	3	4	3	0	10
PW6 (CM)	1	4	4	11	20
PW4+6	**4 (13%)**	**8 (27%)**	**7 (23%)**	**11 (37%)**	**30 (100%)**

Table 2 shows that as many as 40% (=13%+27%) of the instances involved global-level decisions about writing, such as decisions about topics and the overall structure or foci of the essays. Since these global-level elements had great effects on the quality of the writing, it was good that the students were given feedback on these elements and found them useful. Past research has shown that unskilled writers often failed to look at writing on a global level (Sommers, 1980). It was significant that the comment providers in this study apparently were able to examine writing on a holistic level. In addition, changes that involved the whole paragraph constituted 23% of the instances, indicating that close to two-thirds, i.e., 63% (40%+23%), of the changes the students made concerned elements that were at least paragraph-level. As discussed above, even though some students did not benefit from the prewriting discussions, quite a few others were helped by feedback of good quality.

The students' use of peers' comments is exemplified as follows. In a total of four instances, the students were made to understand the problems with their topics and then to change the topics. For example, for her classification paper, Charlotte first intended to talk about several types of salespeople and planned to classify them according to the ways they talked about their goods (i.e., one type that greatly exaggerated the quality of their products and a second type that was more honest). One group member pointed out that almost all salespeople exaggerated the quality of their goods in order to make sales, and that, therefore, Charlotte's principle for classification would not work. Charlotte agreed and decided to give up her topic.

In eight instances, peers' comments caused macro-level changes. An example is Percy's acceptance of the suggestion to include both the pro and con arguments in his argumentation essay about whether cloning should be banned. One group member felt that Percy's argument against cloning was weakened by the fact that he presented only arguments that support his opinion and had failed to bring up opposing arguments. Percy agreed that expanding his essay by countering opposing arguments would strengthen his essay. Eventually, in his second draft he included opposing views and also refuted them, which did improve his essay.

There were seven instances in which the students made paragraph-level changes. For example, Jessie decided to add a paragraph to talk about the negative consequences of gay people's adoption of children in her argumentation essay arguing against the legalization of homosexual marriages. One of her group members reminded her that she had forgotten to mention how adopted children might not develop normally in gay families. Jessie heartily adopted the suggestion and enriched her essay by doing so.

In 11 instances, changes smaller than a paragraph were made. An example can be found in Kate's argumentation essay about why the government should not set a curfew. One group member suggested that Kate talk about how the curfew system would require the government to send out policemen to patrol the streets at night and how that would waste taxpayers' money. Kate was very pleased with this suggestion and added a sentence in one of her paragraphs to include this idea.

Even though the prewriting discussions helped the students to write to a certain extent, as mentioned above, the effects of these discussions were compromised in some ways because of

some of the students' practices. Since many students did not have the habit of taking notes during the discussions, they inevitably forgot some of the comments made about their writing. This was reported by Charlotte, Patty, Rose, and Donna. When the researcher reviewed the comments on the transcripts with these students, she found that these students actually agreed with some of the comments and would have used them if they had remembered them. Apparently, notetaking was an important skill that would have benefited the students. In addition, sometimes the ideas shared in the groups were not used because the peers' ideas were not understood. Five students reported this: Jane, Evelyn, Patty, Jessie, and Raymond. Since verbal exchanges could proceed very fast during the discussions, the students might not have had the chance to ask for clarifications of things not understood. In addition, there were also cases in which the ideas or suggestions discussed were considered to be good by the students, but they did not know how to implement those suggestions in actual writing. This problem was reported by three students: Kate, Charlotte, and Raymond. Since all of the things mentioned above inevitably happened in prewriting discussions, the usefulness of these discussions was not as great as expected by the teacher.

Students' Perceptions of the Usefulness of Prewriting Discussions

In a questionnaire given out at the end of the course, the students were asked to indicate how useful the following resources were in helping to generate ideas for writing first drafts: (1) small-group CM prewriting discussions, (2) students' own ideas, (3) textual information from resources such as the school library, students' homes, etc. (e.g., magazines, journals, newspapers), (4) ideas obtained from friends, classmates outside of students' writing groups, roommates, etc., and (5) information from the textbook used in class or handouts provided by the teacher. The students were asked to check the degree of helpfulness on a scale of one to four: 1 = very helpful, 2 = somewhat helpful, 3 = only very slightly helpful, and 4 = not helpful at all. Table 3 shows the number of students who checked the various degrees of helpfulness.

Table 3 shows that the elements that were considered most helpful were, in descending order: (1) textual information from the school library, students' homes, etc., (2) students' own ideas, (3) ideas from friends, classmates outside of the writing groups, roommates, etc., (4) textbook used in class and teacher-provided handouts, and (5) CM prewriting discussions. Apparently, the students considered textual information sources from the school library or students' homes (such as magazines, journals, newspaper, books, etc.), to be the most helpful. Since in assignments 5 and 6 (cause-effect and argumentation essays) the students were required to do library research to find information to support what they wrote, it was understandable why these textual resources were considered important. The table also shows that the students depended on their own ideas to a great extent. Therefore, for many of the students, writing the first drafts was a lonely process that required much independent work. However, the fact that six students said they found ideas from friends, classmates outside of their writing groups, roommates, etc., the most useful showed that some students tried to get peer feedback outside the classroom, indicating that some students did believe in the advantages of having multiple audiences. The textbook and teacher-provided handouts seemed to be useful for a small group of students. The most disappointing finding was that CM prewriting discussions were considered the least useful, suggesting that the value of networked computers as a tool to facilitate prewriting discussions is not as high as desired by the teacher.

During the interviews, the students cited several reasons for the ineffectiveness of the CM prewriting discussions. The most frequently mentioned reason was the insufficient time allowed for these discussions. Since typing out ideas on the computer was very time-consuming, the students had to rush through their discussions and often concluded the discussions feeling that

Table 3: Students' Perceptions of Usefulness of Various Resources for Generating Ideas

	Very helpful	Somewhat helpful	Only very slightly helpful	Not helpful at all	Total number of Students
CM prewriting discussions	1 (5.9%)	9 (52.9%)	7 (41.2%)	0 (0%)	17 (100.0%)
Students' own ideas	7 (41.2%)	8 (47.1%)	2 (11.8%)	0 (0%)	17 (100.0%)
Ideas from friends, classmates outside of writing groups, roommates, etc.	6 (35.3%)	6 (35.3%)	5 (29.4%)	0 (0%)	17 (100.0%)
Textual information from the school library, students' homes, etc.	8 (47.1%)	8 (47.1%)	1 (5.9%)	0 (0%)	17 (100.0%)
Textbook and handouts	2 (11.8%)	11 (64.7%)	4 (23.5%)	0 (0%)	17 (100.0%)

they had not said all they wanted to say. The second reason students gave was the responders' inability to give good suggestions. A lot of the discussion time was spent on the comment-providers asking the authors about the content of the essays, so there was often little time left for the comment-providers to give suggestions for writing. The third reason was that the prewriting discussions were sometimes useless because the authors changed their topics later. Since the prewriting stage is the stage in which the students often wavered about their topics, changes of topic often occurred. The fourth reason was some authors' failure to prepare themselves well for the discussions (e.g., failing to think about what to write beforehand). In such cases, the quality of the prewriting discussions suffered.

Conclusions and Implications

The study showed that some students did use the ideas discussed during the CM prewriting discussions. Therefore, these discussions were useful to a certain extent. However, the students did not use peers' ideas very often, i.e., only an average of 0.7 and 1.4 instance(s) for each student in assignments 4 and 6, respectively. In addition, in these two assignments, 50% and 21.4%, respectively, of the students did not use any of the ideas from the discussions at all. Apparently, quite a few students failed to benefit from these prewriting discussions. Therefore, CM prewriting discussions were not as effective as desired by the teacher.

However, an examination of the quality of the ideas from prewriting discussions which were used by the students showed that 40% of them were concerned with macro-level issues of the essays, such as the appropriateness of the topic or the overall content or structure of the whole essay. In addition, 23% of them were concerned with issues that concerned the paragraph. Therefore, the quality of the ideas that were used was acceptable, showing that the students were able to avoid focusing their attention only on micro-level problems, such as grammar and word usage, and deal with larger issues.

The activities or resources students perceived to be useful in idea generation in the prewriting stage were, in descending order: textual information from the school library or students' homes (e.g., books, newspapers, magazines, journals); the students' own ideas; ideas from friends, classmates outside their writing groups, and roommates, etc.; textual information from the textbook and teacher-provided handouts; and CM prewriting discussions. Apparently, CM prewriting discussions were not considered very useful.

A few teaching implications can be drawn from this study. To improve the quality of CM prewriting discussions, the teacher should give sufficient guidance for conducting the discussion so that the discussion could be maximally productive. The guidance could be in the form of a series of questions for students to consider when responding to writing. Besides prewriting discussions, the teacher could teach other invention skills, such as freewriting, idea mapping, cubing, idea association, looping, imaging, memory recall, etc., as ways to enlarge students' ways of thinking about writing topics. If these invention strategies could be demonstrated and practiced in class regularly throughout the course, the students would have a chance to internalize them. These skills could be used as alternative ways to help students generate ideas. However, these skills could also be used to complement CM prewriting discussions. Before going into prewriting discussions, the students could use some of these skills as warm-up tools to prepare themselves. A few other activities might also be helpful. For example, for an assignment that requires library research skills, the teacher should make sure that the students have been taught these skills. The teacher could provide model essays or conduct extended class discussion about an assignment that students have never had any experience with. The teacher should also encourage students to extend their prewriting discussion outside the classroom and use as many human resources, such as friends and roommates, as possible. Additionally, the teacher should also remind students of the importance of making preparation for prewriting discussions, so that the authors would be rewarded by fruitful discussions.

The following research implications can be drawn here. This study involved only a small number of participants. In the future, researchers can involve a larger sample, so that the findings will be more representative of the targeted population. In addition, another stage of the writing process, revision, can also be investigated. Many teachers in Taiwan have used peer response sessions to help students revise. Therefore, future researchers can study how CM peer response sessions help students revise and how students perceive the usefulness of these sessions. EFL researchers and teachers, and ultimately their students, will definitely benefit from such studies.

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